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AMSAT NEWS SERVICE
ANS-043

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The AMSAT News Service bulletins are a free, weekly news and information service of AMSAT, The Radio Amateur Satellite Corporation. ANS publishes news related to Amateur Radio in Space including reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

The news feed on http://www.amsat.org publishes news of Amateur Radio in Space as soon as our volunteers can post it.

Please send any amateur satellite news or reports to: ans-editor [at] amsat [dot] org.

You can sign up for free e-mail delivery of the AMSAT News Service Bulletins via the ANS List; to join this list see: https://mailman.amsat.org/postorius/lists/ans.amsat.org/

ANS-043 AMSAT News Service Weekly Bulletins

To: All RADIO AMATEURS
From: Radio Amateur Satellite Corporation
712 H Street NE, Suite 1653
Washington, DC 20002

DATE 2023 Feb 12

AMSAT Engineering Recruiting Volunteers

+ RF Engineer
AMSAT is looking for an EE with RF experience to join its FOX-PLUS team. You'll collaborate with an all-volunteer team of up to ten electrical, mechanical, software and systems engineers. You will have the opportunity to design and build the RF communications subsystems for a series of low earth orbit, 1U-3U CubeSats to support AMSAT's educational and engineering objectives.

You should have a working knowledge of analog and digital communications protocols (e.g., FM, PSK, FSK) to provide digitally synthesized audio for FM modulated VHF/UHF/SHF voice and telemetry channels. Development opportunities can begin with modification of previous FOX designs and/or by starting with a blank sheet for an original design.

+ Mechanical Engineers
AMSAT is looking for Mechanical Engineers to join its FOX and GOLF CubeSat teams. You'll collaborate with an all-volunteer team of up to 12 electrical, mechanical, software and systems engineers. You will have the opportunity to use your structural design and analysis skills in the development of a series of low earth orbit and highly elliptical orbit, 1U-3U CubeSats to support AMSAT's educational and engineering objectives.

Your contribution may include a) the development of the spaceframe and deployable solar panel subsystem, b) the analysis of the thermal characteristics of the CubeSat and the design of the thermal

management system, c) preparation and oversight of the environmental testing procedure, and/or d) management of documentation of the CubeSats adherence to the launch provider's and space vehicle owner's specifications.

Our volunteers typically spend five hours per week on their project and attend a weekly online update meeting. An Amateur Radio license and CubeSat experience is helpful but not necessary. U.S. citizenship or proof of permanent residency is required.

Interested persons should send an email with their resume/curriculum vitae to: volunteer(a)amsat.org.

[ANS thanks Jonathan Brandenburg, KF5IDY, AMSAT Assistant VP, Engineering for the above information.]

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The ISS callsign was NA1SS.
The crewmember was Josh Cassada, KI5CRH.
Contact was successful on February 7, 2023.

Colegio Diocesano Santa María Nuestra Senora, Ecija, Spain, telebridge via IK1SLD.
The ISS callsign was OR4ISS.
The scheduled crewmember was Josh Cassada, KI5CRH.
Contact was successful on February 8, 2023.

The latest information on the operation mode can be found at
https://www.ariss.org/current-status-of-iss-stations.html

The latest list of frequencies in use can be found at https://www.ariss.org/contact-the-iss.html

[ANS thanks Charlie Sufana, AJ9N, one of the ARISS operation team mentors for the above information.]

Upcoming Satellite Operations

FN10; Sunday, February 12, 2023
K4DCA - Will be there with his FM gear.

[ANS thanks Paul Overn, KE0PBR, AMSAT rover page manager, for the above information.]

Hamfests, Conventions, Maker Faires, and Other Events

AMSAT Ambassadors provide presentations, demonstrate communicating through amateur satellites, and host information tables at club meetings, hamfests, conventions, maker faires, and other events.

+ Orlando Hamcation
February 10-12, 2023
Central Florida Fairgrounds and Expo Park
4603 West Colonial Drive, Orlando, Florida 32808
https://www.hamcation.com/

+ 2023 CubeSat Developer’s Workshop
April 24-27, 2023
California Polytechnic State University
1 Grand Avenue, San Luis Obispo, California 93407
https://www.cubesatdw.org/

[ANS thanks Paul Overn, KE0PBR, AMSAT Events page manager, for the above information.]

Satellite Shorts From All Over

+ Newly found is the SARCTRAC Mk3b, a $290 satellite antenna rotator from Australia. USARCTRAC comes with all its components enclosed in a waterproof IP65 rated enclosure. It makes use of a 3D position sensor with magnetometer, allowing the unit to know its orientation at all times, meaning that it should be able to automatically position itself from startup. The design also makes use of DC motors with a built in worm gear drive, so the motors back driving is not possible. The system is controlled via a built in Raspberry Pi 3B+ and can communicate with the controlling PC via WiFi. More information available at https://www.sarcnet.org/sarctrac.html. [ANS thanks rtl-sdr.com for the above information.]

+ The 2022 edition of State-of-the-Art of Small Spacecraft Technology At NASA is now available for download. As with all previous editions of this report, the 2022 edition captures and distills a wealth of new information available on small spacecraft systems from NASA and other publicly available sources. This report should not be considered as a comprehensive overview of all the technologies but a great reference for the current state-of-the-art SmallSat technologies. Read the complete description of the report and download it at https://tinyurl.com/ANS-043-Report. [ANS thanks spaceref.com for the

above information.]

Join AMSAT today at https://launch.amsat.org/

In addition to regular membership, AMSAT offers membership to:

* Societies (a recognized group, clubs or organization).
* Primary and secondary school students are eligible for membership at one-half the standard yearly rate.
* Post-secondary school students enrolled in at least half time status shall be eligible for the student rate for a maximum of 6 post-secondary years in this status.
* Memberships are available for annual and lifetime terms.

Contact info [at] amsat.org for additional membership information.

73 and remember to help Keep Amateur Radio in Space!

This week's ANS Editor, Frank Karnauskas, N1UW
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